

| | | | | | | |
|------------------------------------|---------------------------------|-----------------------------|---------------------------------------|---------------------------------|-----------------|---------------------------------|
| Form 1449A Modified | | | Application Number | 09/754,477 | | |
| | | | Filing Date | Jan. 4, 2001 | | |
| | | | First Named Inventor | Brad A. Armstrong | | |
| | | | Art Unit | 2674 | | |
| | | | Examiner Name | Nguyen, K. | | |
| | | | Applicant's File Number | F35 | | |
| | | | | | | |
| Examiner Initials | US Patent Number | Publication Date | Patentee or Applicant Name | Relevent Information | US Class | Previously Submitted |
| KN | 2430284 | 11/4/1947 | EVERS | Cited for Related Interest | 341/187 | |
| | 3296882 | 1/10/1967 | DURAND | Cited for Related Interest | 74/471 | |
| | 3611068 | 10/5/1971 | FUJITA | Footnote 23 -- Special Interest | 338/2 | |
| | 3693425 | 9/26/1972 | STARITA ETAL | Cited for Related Interest | 73/862.044 | |
| | 3710050 | 1/9/1973 | RICHARDS | Cited for Related Interest | 200/61.43 | |
| | 3771037 | 11/6/1973 | BAILEY | Cited for Related Interest | 318/580 | |
| | 3806471 | 4/23/1974 | MITCHELL | Footnote 80 -- Special Interest | 252/519 | |
| | 3921445 | 11/25/1975 | HILL ETAL | Cited for Related Interest | 73/862 | |
| | 3952173 | 4/20/1976 | TSUJI ETAL | Cited for Related Interest | 200/511 | |
| | 3988556 | 10/26/1976 | HYODO | Cited for Related Interest | 200/511 | |
| | 3993884 | 11/23/1976 | KONDUR ETAL | Footnote 75 -- Special Interest | 200/295 | |
| | 4099409 | 7/11/1978 | EDMOND | Cited for Related Interest | 73/862 | |
| | 4133012 | 1/2/1979 | TAKAMIYA ETAL | Footnote 77 -- Special Interest | 360/90 | |
| | 4158759 | 6/19/1979 | MASON | Footnote 41 -- Special Interest | 219/720 | |
| | 4164634 | 8/14/1979 | GILANO | Cited for Related Interest | 200/5A | |
| | 4216467 | 8/5/1980 | COLSTON | Cited for Related Interest | 341/20 | |
| | 4224602 | 9/23/1980 | ANDERSON ETAL | Cited for Related Interest | 340/321 | |
| | 4246452 | 1/20/1981 | CHANDLER | Footnote 62 -- Special Interest | 200/5A | |
| | 4268815 | 5/19/1981 | EVENTOFF | Cited for Related Interest | 338/69 | |
| | 4276538 | 6/30/1981 | EVENTOFF | Cited for Related Interest | 338/69 | |
| | 4297542 | 10/27/1981 | SHUMWAY | Cited for Related Interest | 200/6A | |
| | 4301337 | 11/17/1981 | EVENTOFF | Cited for Related Interest | 200/5A | |
| | 4313113 | 1/26/1982 | THORNBURG | Footnote 28 -- Special Interest | 345/159 | |
| | 4314228 | 2/2/1982 | EVENTOFF | Cited for Related Interest | 338/114 | |
| | 4314227 | 2/2/1982 | EVENTOFF | Cited for Related Interest | 338 | |
| | 4315238 | 2/9/1982 | EVENTOFF | Cited for Related Interest | 338 | |
| | 4348142 | 9/7/1982 | FIGOUR | Cited for Related Interest | 414/2 | |
| | 4349708 | 9/14/1982 | ASHER | Cited for Related Interest | 200/6A | |
| | 4369663 | 1/25/1983 | VENTURELLO ETAL | Cited for Related Interest | 73/862.043 | |
| | 4369971 | 1/25/1983 | CHANG ETAL | Cited for Related Interest | 463/2 | |
| | 4385841 | 5/31/1983 | KRAMER | Cited for Related Interest | 368/29 | |
| | 4406217 | 9/27/1983 | OOTA | Footnote 42 -- Special Interest | 99/280 | |
| | 4408103 | 10/4/1983 | SMITH | Cited for Related Interest | 200/6A | |
| | 4414537 | 11/8/1983 | GRIMES | Cited for Related Interest | 341/20 | |
| | 4419653 | 12/6/1983 | WAIGAND | Cited for Related Interest | 338/114 | |
| | 4420808 | 12/13/1983 | DIAMOND ETAL | Cited for Related Interest | 701/4 | |
| | 4469330 | 9/4/1984 | ASHER | Cited for Related Interest | 463/38 | |
| | 4469930 | 9/4/1984 | TAKAHASHI | Cited for Related Interest | 219/121.72 | |
| | 4489302 | 12/18/1984 | EVENTOFF | Cited for Related Interest | 338/99 | |
| | 4490587 | 12/25/1984 | MILLER | Cited for Related Interest | 200/5 | |
| | 4491325 | 1/1/1985 | Bersheim | Footnote 91 -- Special Interest | 463/38 | |
| | 4504059 | 3/12/1985 | Weinrieb | Cited for Related Interest | 273/148 | |
| | 4514600 | 4/30/1985 | LENTZ | Cited for Related Interest | 200/5R | |
| | 4536746 | 8/20/1985 | GOBELI | Cited for Related Interest | 341/20 | |

Examiner
Signature



Date
Considered

4/16/04

| Examiner Initials | US Patent Number | Publication Date | Patentee or Applicant Name | Relevant Information | US Class | Previously Submitted |
|-------------------|------------------|------------------|----------------------------|---------------------------------|------------|----------------------|
| KN | 4536746 | 8/20/1985 | GOBELI | Footnote 26 -- Special Interest | 341/20 | |
| | 4546347 | 10/8/1985 | KIRSCH | Cited for Related Interest | 345/166 | yes |
| | 4552360 | 11/12/1985 | BROMLEY ETAL | Cited for Related Interest | 463/38 | |
| | 4555960 | 12/3/1985 | KING | Footnote 1 -- Special Interest | 74/471XY | |
| | 4573682 | 3/4/1986 | Mayon | Cited for Related Interest | 273/148 | |
| | 4604509 | 8/5/1986 | CLANCY ETAL | Cited for Related Interest | 200/513 | |
| | 4604502 | 8/5/1986 | Thomas | Footnote 92 -- Special Interest | 200/6A | |
| | 4615252 | 10/7/1986 | YAMAUCHI ETAL | Cited for Related Interest | 84/687 | |
| | 4630823 | 12/23/1986 | Grant | Cited for Related Interest | 273/148 | |
| | 4647916 | 3/3/1987 | BOUGHTON | Cited for Related Interest | 345/156 | |
| | 4667271 | 5/19/1987 | WILSON | Cited for Related Interest | 361/725 | |
| | 4670743 | 6/2/1987 | ZEMKE | Cited for Related Interest | 345/157 | |
| | 4673919 | 6/16/1987 | KATAOKA | Cited for Related Interest | 341/11 | |
| | 4680577 | 7/14/1987 | STRAAYER ETAL | Footnote 67 -- Special Interest | 345/160 | |
| | 4684089 | 8/4/1987 | LELY | Cited for Related Interest | 248/124.1 | |
| | 4687200 | 8/18/1987 | SHIRAI | Cited for Related Interest | 463/37 | |
| | 4694231 | 9/15/1987 | ALVITE | Cited for Related Interest | 318/568.11 | |
| | 4724292 | 2/9/1988 | ICHIKAWA | Cited for Related Interest | 219/708 | |
| | 4733214 | 3/22/1988 | ANDRESEN | Cited for Related Interest | 219/708 | |
| | 4745301 | 5/17/1988 | MICHALCHIK | Cited for Related Interest | 307/119 | |
| | 4766271 | 8/23/1988 | MITSUHASHI ETAL | Cited for Related Interest | 200/512 | |
| | 4786895 | 11/22/1988 | CASTANEDA | Cited for Related Interest | 345/160 | |
| | 4811608 | 3/14/1989 | HILTON | Cited for Related Interest | 73/862.043 | |
| | 4855704 | 8/8/1989 | BETZ | Cited for Related Interest | 336/132 | |
| | 4858930 | 8/22/1989 | SATO | Footnote 54 -- Special Interest | 463/23 | |
| | 4866542 | 9/12/1989 | SHIMADA ETAL | Cited for Related Interest | 386/69 | |
| | 4866544 | 9/12/1989 | HASHIMOTO | Cited for Related Interest | 360/40 | |
| | 4879556 | 11/7/1989 | DUIMEL | Footnote 16 -- Special Interest | 341/20 | |
| | 4910503 | 3/20/1990 | BRODSKY | Cited for Related Interest | 345/161 | |
| | 4909514 | 3/20/1990 | Tano | Footnote 94 -- Special Interest | 273/148 | |
| | 4924216 | 5/8/1990 | LEUNG | Footnote 11 -- Special Interest | 463/38 | |
| | 4933670 | 6/12/1990 | WISLOCKI | Footnote 10 -- Special Interest | 345/167 | |
| | 4935728 | 6/19/1990 | KLEY | Footnote 5 -- Special Interest | 345/161 | |
| | 4962448 | 10/9/1990 | DEMAIO ETAL | Cited for Related Interest | 700/17 | |
| | 4975676 | 12/4/1990 | GREENHALGH | Cited for Related Interest | 338/114 | |
| | 5038144 | 8/6/1991 | Kaye | Cited for Related Interest | 341/176 | |
| | 5059958 | 10/22/1991 | JACOBS ETAL | Cited for Related Interest | 345/158 | |
| | 5065146 | 11/12/1991 | GARRETT | Footnote 13 -- Special Interest | 345/161 | |
| | 5068498 | 11/26/1991 | ENGEL | Cited for Related Interest | 200/6A | |
| | 5103404 | 4/7/1992 | MCINTOSH | Cited for Related Interest | 318/568 | |
| | 5116051 | 5/26/1992 | MONCRIEF ETAL | Cited for Related Interest | 463/36 | |
| | 5128671 | 7/7/1992 | THOMAS | Cited for Related Interest | 341/20 | |
| | 5132658 | 7/21/1992 | DAUENHAUER ETAL | Cited for Related Interest | 338/92 | |
| | 5139439 | 8/18/1992 | SHIE | Cited for Related Interest | 439/359 | |
| | 5142931 | 9/1/1992 | MENAHEM | Footnote 7 -- Special Interest | 74/471XY | |
| | 5164697 | 11/17/1992 | KRAMER | Footnote 58 -- Special Interest | 338/69 | |
| | 5168221 | 12/1/1992 | HOUSTON | Cited for Related Interest | 324/207 | |
| | 5182796 | 1/26/1993 | SHIBAYAMA ETAL | Cited for Related Interest | 345/841 | |
| | 5183998 | 2/2/1993 | HOFFMAN ETAL | Cited for Related Interest | 219/492 | |
| | 5184830 | 2/9/1993 | OKADA ETAL | Footnote 51 -- Special Interest | 463/29 | |
| | 5189355 | 2/23/1993 | LARKINS ETAL | Cited for Related Interest | 318/685 | |
| ▼ | 5196782 | 3/23/1993 | D'ALEO ETAL | Cited for Related Interest | 323/320 | |

Examiner Signature

Date Considered

4/16/04

| Examiner Initials | US Patent Number | Publication Date | Patentee or Applicant Name | Relevent Information | US Class | Previously Submitted |
|-------------------|------------------|------------------|----------------------------|---------------------------------|------------|----------------------|
| | | | | | | |
| | 5200597 | 4/6/1993 | EASTMAN | Cited for Related Interest | 235/455 | |
| | 5203563 | 4/20/1993 | LOPER | Footnote 64 -- Special Interest | 273/148B | |
| | 5207426 | 5/4/1993 | INOUE ET AL | Footnote 20 -- Special Interest | 463/36 | |
| | 5222400 | 6/29/1993 | HILTON | Footnote 88 -- Special Interest | 73/862 | |
| | 5231386 | 7/27/1993 | BRANDENBURG ETAL | Footnote 18 -- Special Interest | 345/174 | |
| | 5237311 | 8/17/1993 | MAILEY ETAL | Cited for Related Interest | 345/167 | |
| | 5250930 | 10/5/1993 | YOSHIDA ETAL | Footnote 15 -- Special Interest | 345/168 | |
| | 5252952 | 10/12/1993 | FRANK ETAL | Footnote 3 -- Special Interest | 345/157 | |
| | 5259626 | 11/9/1993 | HO | Cited for Related Interest | 463/37 | |
| | 5264768 | 11/23/1993 | GREGORY ETAL | Footnote 32 -- Special Interest | 318/561 | |
| | 5271290 | 12/21/1993 | FISCHER | Cited for Related Interest | 74/471XY | |
| | D342740 | 12/28/1993 | PARKER | Cited for Related Interest | D14/218 | |
| | 5278557 | 1/11/1994 | STOKES ETAL | Cited for Related Interest | 341/34 | |
| | 5280926 | 1/25/1994 | SOGGE ETAL | Cited for Related Interest | 277/641 | |
| | 5287089 | 2/15/1994 | PARSONS | Cited for Related Interest | 345/156 | |
| | 5286024 | 2/15/1994 | WINBLAD | Cited for Related Interest | 273/148B | |
| | 5293158 | 3/8/1994 | SOMA | Cited for Related Interest | 345/161 | |
| | 5294121 | 3/15/1994 | CHIANG | Footnote 52 -- Special Interest | 273/148B | |
| | 5298919 | 3/29/1994 | CHANG | Cited for Related Interest | 345/163 | |
| | 5311779 | 5/17/1994 | TERUO | Cited for Related Interest | 73/726 | |
| | 5313229 | 5/17/1994 | GILLIGAN ETAL | Cited for Related Interest | 345/157 | |
| | 5315204 | 5/24/1994 | PARK | Footnote 50 -- Special Interest | 310/339 | |
| | 5327201 | 7/5/1994 | COLEMAN ETAL | Footnote 70 -- Special Interest | 399/342 | |
| | 5329276 | 7/12/1994 | HIRABAYASHI | Cited for Related Interest | 340/870.31 | |
| | 5333057 | 7/26/1994 | MORIKAWA ETAL | Cited for Related Interest | 358/296 | |
| | 5345807 | 9/13/1994 | BUTTS ETAL | Footnote 73 -- Special Interest | 73/1.15 | |
| | 5349371 | 9/20/1994 | FONG | Cited for Related Interest | 345/166 | yes |
| | 5355352 | 10/11/1994 | KOBAYASHI ETAL | Footnote 37 -- Special Interest | 368/281 | |
| | 5364108 | 11/15/1994 | ESNOUF | Cited for Related Interest | 368/281 | |
| | 5365494 | 11/15/1994 | LYNCH | Footnote 39 -- Special Interest | 368/10 | |
| | 5376913 | 12/27/1994 | PINE ETAL | Cited for Related Interest | 338/114 | |
| | 5386084 | 1/31/1995 | RISKO | Cited for Related Interest | 174/52.3 | |
| | 5389757 | 2/14/1995 | SOULIERE | Footnote 57 -- Special Interest | 200/345 | |
| | 5391083 | 2/21/1995 | ROEBUCK ETAL | Cited for Related Interest | 174/52.3 | |
| | D355901 | 2/28/1995 | BRADLEY | Cited for Related Interest | D14/410 | |
| | 5394168 | 2/28/1995 | SMITH, III, ETAL | Cited for Related Interest | 345/156 | |
| | 5396235 | 3/7/1995 | MAESHIMA | Footnote 92 -- Special Interest | 341/34 | |
| | 5396225 | 3/7/1995 | OKADA ETAL | Footnote 55 -- Special Interest | 463/40 | |
| | 5399823 | 3/21/1995 | MCCUSKER | Footnote 74 -- Special Interest | 200/521 | |
| | 5419613 | 5/30/1995 | Wedecking | Cited for Related Interest | 297/217 | |
| | 5440237 | 8/8/1995 | BROWN ETAL | Footnote 83 -- Special Interest | 324/601 | |
| | 5452615 | 9/26/1995 | HILTON | Cited for Related Interest | 73/862 | |
| | 5457478 | 10/10/1995 | FRANK | Cited for Related Interest | 345/158 | |
| | 5459487 | 10/17/1995 | BOUTON | Cited for Related Interest | 463/37 | |
| | 5467108 | 11/14/1995 | MIMLITCH | Cited for Related Interest | 345/161 | |
| | 5487053 | 1/23/1996 | BEISWENGER ETAL | Cited for Related Interest | 368/69 | |
| | 5499041 | 3/12/1996 | BRANDENBURG ETAL | Footnote 33 -- Special Interest | 345/174 | |
| | 5508719 | 4/16/1996 | GERVAIS | Cited for Related Interest | 345/157 | |
| | 5510812 | 4/23/1996 | O'MARA ETAL | Footnote 38 -- Special Interest | 345/161 | |
| | 5512892 | 4/30/1996 | Corballis | Footnote 93 -- Special Interest | 341/22 | |
| | 5517211 | 5/14/1996 | KWANG-CHIEN | Cited for Related Interest | 345/166 | yes |
| ✓ | 5528265 | 6/18/1996 | Harrison | Cited for Related Interest | 345/158 | |

Examiner Signature

Keesun Yoo

Date Considered

4/16/04

| Examiner Initials | US Patent Number | Publication Date | Patentee or Applicant Name | Relevent Information | US Class | Previously Submitted |
|-------------------|------------------|------------------|----------------------------|---------------------------------|------------|----------------------|
| KN | 5530455 | 6/25/1996 | GILLICK ETAL | Cited for Related Interest | 345/163 | |
| | 5541622 | 7/30/1996 | ENGLE ETAL | Footnote 34 -- Special Interest | 345/161 | |
| | 5543781 | 8/6/1996 | GANUCHEAU, JR. ETAL | Footnote 68 -- Special Interest | 340/7.52 | |
| | 5550339 | 8/27/1996 | HAUGH | Cited for Related Interest | 200/5A | |
| | 5552799 | 9/3/1996 | HASHIGUCHI | Footnote 53 -- Special Interest | 345/3.2 | |
| | 5551693 | 9/3/1996 | GOTO ETAL | Cited for Related Interest | 463/37 | |
| | 5555004 | 9/10/1996 | ONO ETAL | Cited for Related Interest | 345/161 | |
| | 5559432 | 9/24/1996 | LOGUE | Cited for Related Interest | 324/207.17 | |
| | 5565891 | 10/15/1996 | ARMSTRONG | Footnote 90 -- Special Interest | 345/167 | |
| | 5564560 | 10/15/1996 | MINELLI ETAL | Footnote 60 -- Special Interest | 200/516 | |
| | 5589828 | 12/31/1996 | ARMSTRONG | Footnote 89 -- Special Interest | 341/20 | |
| | 5591924 | 1/7/1997 | HILTON | Cited for Related Interest | 73/862 | |
| | 5602569 | 2/11/1997 | KATO | Cited for Related Interest | 345/158 | |
| | 5606594 | 2/25/1997 | REGISTER ETAL | Cited for Related Interest | 455/556.2 | |
| | 5607158 | 3/4/1997 | Chan | Cited for Related Interest | 273/148B | |
| | 5615083 | 3/25/1997 | Burnett | Cited for Related Interest | 361/686 | |
| | 5640566 | 6/17/1997 | VICTOR ETAL | Cited for Related Interest | 717/113 | |
| | 5644113 | 7/1/1997 | DATE ETAL | Cited for Related Interest | 200/5R | |
| | D381982 | 8/5/1997 | ZEITMAN | Cited for Related Interest | D14/162 | |
| | 5657051 | 8/12/1997 | LIAO | Cited for Related Interest | 345/163 | |
| | 5659334 | 8/19/1997 | YANIGER ETAL | Cited for Related Interest | 345/156 | |
| | 4045650 | 8/30/1997 | NESTOR | Cited for Related Interest | 200/556 | |
| | 5670955 | 9/23/1997 | THORN ETAL | Footnote 24 -- Special Interest | 341/34 | |
| | 5670988 | 9/23/1997 | TICKLE | Cited for Related Interest | 345/157 | |
| | 5669818 | 9/23/1997 | THORNER ETAL | Cited for Related Interest | 463/30 | |
| | 5673237 | 9/30/1997 | BLANK | Cited for Related Interest | 368/10 | |
| | 5675329 | 10/7/1997 | BARKER ETAL | Cited for Related Interest | 341/22 | |
| | 5675309 | 10/7/1997 | DEVOLPI | Cited for Related Interest | 338/68 | |
| | 5675359 | 10/7/1997 | ANDERSON | Cited for Related Interest | 345/161 | |
| | 5684759 | 11/4/1997 | HUANG ETAL | Cited for Related Interest | 368/10 | |
| | 5687080 | 11/11/1997 | HOYT ETAL | Footnote 14 -- Special Interest | 700/85 | |
| | 5689285 | 11/18/1997 | ASHER | Footnote 30 -- Special Interest | 345/161 | |
| | 5706027 | 1/6/1998 | HILTON ETAL | Cited for Related Interest | 345/156 | |
| | 5704612 | 1/6/1998 | KELLY ETAL | Cited for Related Interest | 273/402 | |
| | 5716274 | 2/10/1998 | GOTO ETAL | Cited for Related Interest | 463/37 | |
| | 5738352 | 4/14/1998 | OHKUBO ETAL | Cited for Related Interest | 273/148B | |
| | 5749577 | 5/12/1998 | COUCH ETAL | Cited for Related Interest | 273/148B | |
| | 5764219 | 6/9/1998 | RUTLEDGE ET AL | Footnote 21 -- Special Interest | 345/159 | |
| | 5767840 | 6/16/1998 | SELKER | Cited for Related Interest | 345/161 | |
| | 5767839 | 6/16/1998 | ROSENBERG | Cited for Related Interest | 345/161 | |
| | 5767840 | 6/16/1998 | SELKER | Cited for Related Interest | 345/161 | |
| | 5774109 | 6/30/1998 | WINKSY ETAL | Cited for Related Interest | 345/685 | |
| | 5778404 | 7/7/1998 | CAPPS ETAL | Cited for Related Interest | 715/531 | |
| | 5781807 | 7/14/1998 | GLASSGOLD ETAL | Footnote 79 -- Special Interest | 396/71 | |
| | 5790102 | 8/4/1998 | NASSIMA | Footnote 96 -- Special Interest | 345/163 | |
| | 5805138 | 9/8/1998 | BRAWNE ETAL | Cited for Related Interest | 345/156 | |
| | 5812114 | 9/22/1998 | LOOP | Footnote 35 -- Special Interest | 345/157 | |
| | 5815139 | 9/29/1998 | YOSHIKAWA | Cited for Related Interest | 345/157 | |
| | 5828363 | 10/27/1998 | YANIGER ETAL | Cited for Related Interest | 345/156 | |
| | 5831596 | 11/3/1998 | MARSHALL ETAL | Cited for Related Interest | 345/161 | |
| | 5835977 | 11/10/1998 | KAMENTSER ETAK | Cited for Related Interest | 73/862.05 | |
| ▼ | 4786764 | 11/22/1998 | Padula et al | Footnote ?? -- Special Interest | 178/18 | |

Examiner Signature

Date Considered

4/16/04

| Examiner Initials | US Patent Number | Publication Date | Patentee or Applicant Name | Relevent Information | US Class | Previously Submitted |
|-------------------|------------------|------------------|----------------------------|---------------------------------|-----------|----------------------|
| KN | 5847305 | 12/8/1998 | YOSHIKAWA ETAL | Footnote 45 -- Special Interest | 84/634 | |
| | 5847639 | 12/8/1998 | YANIGER | Cited for Related Interest | 338/99 | |
| | 5847694 | 12/8/1998 | REDFORD ETAL | Footnote 31 -- Special Interest | 345/158 | |
| | 5847698 | 12/8/1998 | REAVY ETAL | Cited for Related Interest | 345/173 | |
| | 5854624 | 12/29/1998 | GRANT | Cited for Related Interest | 345/169 | |
| | 5853326 | 12/29/1998 | GOTO ETAL | Cited for Related Interest | 463/37 | |
| | 5854622 | 12/29/1998 | BRANNON | Cited for Related Interest | 345/161 | |
| | 5867808 | 2/2/1999 | SELKER ETAL | Cited for Related Interest | 702/41 | |
| | 5872521 | 2/16/1999 | LOPATUKIN ETAL | Cited for Related Interest | 340/7.52 | |
| | 5883619 | 3/16/1999 | HO ETAL | Cited for Related Interest | 345/163 | |
| | 5889236 | 3/30/1999 | GILLESPIE ET AL | Cited for Related Interest | 178/18.01 | |
| | 5889507 | 3/30/1999 | ENGLE ETAL | Footnote 17 -- Special Interest | 345/161 | |
| | 5889236 | 3/30/1999 | GILLESPIE ETAL | Cited for Related Interest | 187/18.01 | |
| | 5895471 | 4/20/1999 | KING ETAL | Cited for Related Interest | 707/104.1 | |
| | 5898359 | 4/27/1999 | ELLIS | Cited for Related Interest | 338/47 | |
| | 5898425 | 4/27/1999 | SEKINE | Footnote 19 -- Special Interest | 345/168 | |
| | 5909207 | 6/1/1999 | HO | Cited for Related Interest | 345/156 | |
| | 5910798 | 6/8/1999 | KIM | Footnote 27 -- Special Interest | 345/163 | |
| | 5910882 | 6/8/1999 | BURRELL | Footnote 76 -- Special Interest | 361/681 | |
| | 5917779 | 6/29/1999 | RALSON ETAL | Cited for Related Interest | 368/83 | |
| | 5923317 | 7/13/1999 | SAYLER ETAL | Footnote 36 -- Special Interest | 345/156 | |
| | 5923267 | 7/13/1999 | BEUK ETAL | Cited for Related Interest | 340/825 | |
| | 5943044 | 8/24/1999 | MARTINELLI ETAL | Footnote 25 -- Special Interest | 345/174 | |
| | 5948066 | 9/7/1999 | WHALEN ETAL | Footnote 44 -- Special Interest | 709/229 | |
| | 5952631 | 9/14/1999 | MIYAKI | Cited for Related Interest | 200/6A | |
| | 5963196 | 10/5/1999 | NISHIUMI ETAL | Cited for Related Interest | 345/161 | |
| | 5966117 | 10/12/1999 | SEFFERNICK ETAL | Cited for Related Interest | 345/161 | |
| | 5974238 | 10/26/1999 | CHASE | Cited for Related Interest | 709/248 | |
| | 5973668 | 10/26/1999 | WATANABE | Cited for Related Interest | 345/157 | |
| | 5983004 | 11/9/1999 | SHAW ETAL | Footnote 78 -- Special Interest | 709/227 | |
| | 5984785 | 11/16/1999 | TAKEDA ETAL | Cited for Related Interest | 463/38 | |
| | 5991594 | 11/23/1999 | FROEBER ETAL | Cited for Related Interest | 434/317 | |
| | 5995026 | 11/30/1999 | SELLERS | Footnote 26 -- Special Interest | 341/34 | |
| | 5995319 | 11/30/1999 | TANIGAWA ETAL | Cited for Related Interest | 360/90 | |
| | 5999084 | 12/7/1999 | ARMSTRONG | Cited for Related Interest | 338/114 | |
| | 5999808 | 12/7/1999 | LADUE | Footnote 49 -- Special Interest | 455/412.2 | |
| | 6001014 | 12/14/1999 | OGATA ETAL | Footnote 66 -- Special Interest | 463/37 | |
| | 6004210 | 12/21/1999 | SHINOHARA | Cited for Related Interest | 463/36 | |
| | 6020884 | 2/1/2000 | MACNAUGHTON ETAL | Cited for Related Interest | 345/747 | |
| | 6027828 | 2/22/2000 | HAHN | Footnote 56 -- Special Interest | 429/100 | |
| | 6037954 | 3/14/2000 | MCMAHON | Cited for Related Interest | 345/169 | |
| | 6040821 | 3/21/2000 | FRANZ ETAL | Cited for Related Interest | 345/159 | |
| | 6049812 | 4/11/2000 | BERTRAM ETAL | Footnote 29 -- Special Interest | 715/516 | |
| | 6049323 | 4/11/2000 | ROCKWELL ETAL | Cited for Related Interest | 345/784 | |
| | 6059660 | 5/9/2000 | TAKADA ETAL | Cited for Related Interest | 463/38 | |
| | 6060701 | 5/9/2000 | MCKEE ETAL | Cited for Related Interest | 219/681 | |
| | 6064766 | 5/16/2000 | SKLAREW | Cited for Related Interest | 382/189 | |
| | 6067005 | 5/23/2000 | DEVOLPI | Cited for Related Interest | 338/47 | |
| | 6067863 | 5/30/2000 | FAVRE ETAL | Cited for Related Interest | 73/862.68 | |
| | 6072469 | 6/6/2000 | CHEN ETAL | Cited for Related Interest | 345/157 | |
| | 6073034 | 6/6/2000 | JACOBSEN ETAL | Cited for Related Interest | 455/566 | |
| ↓ | 6102802 | 8/15/2000 | ARMSTRONG | Cited for Related Interest | 463/37 | |

Examiner Signature

Date Considered

4/16/04

| Examiner Initials | US Patent Number | Publication Date | Patentee or Applicant Name | Relevent Information | US Class | Previously Submitted |
|-------------------|------------------|------------------|----------------------------|---------------------------------|-----------|----------------------|
| KN | 6112014 | 8/29/2000 | KANE | Footnote 40 -- Special Interest | 358/1.16 | |
| | 6118979 | 9/12/2000 | POWELL | Footnote 46 -- Special Interest | 340/7.6 | |
| | 6124845 | 9/26/2000 | TODA ETAL | Cited for Related Interest | 345/157 | |
| | 6135886 | 10/24/2000 | ARMSTRONG | Cited for Related Interest | 463/37 | |
| | 6153843 | 11/28/2000 | DATE ETAL | Cited for Related Interest | 200/339 | |
| | 6157935 | 12/5/2000 | TRAN ETAL | Cited for Related Interest | 715/503 | |
| | 6157381 | 12/5/2000 | BATES ETAL | Cited for Related Interest | 345/786 | |
| | 6178338 | 1/23/2001 | YAMAGISHI ETAL | Cited for Related Interest | 455/566 | |
| | 6177926 | 1/23/2001 | KUNERT | Footnote 71 -- Special Interest | 345/173 | |
| | 6185158 | 2/6/2001 | ITO ETAL | Cited for Related Interest | 368/37 | |
| | 6198473 | 3/6/2001 | ARMSTRONG | Cited for Related Interest | 345/163 | |
| | 6198948 | 3/6/2001 | SUDO ETAL | Footnote 43 -- Special Interest | 455/566 | |
| | 6198472 | 3/6/2001 | LECTION ETAL | Cited for Related Interest | 345/161 | |
| | 6208271 | 3/27/2001 | ARMSTRONG | Cited for Related Interest | 341/34 | |
| | 6222525 | 4/24/2001 | ARMSTRONG | Cited for Related Interest | 345/161 | |
| | 6231444 | 5/15/2001 | GOTO ETAL | Footnote 47 -- Special Interest | 463/37 | |
| | 6239786 | 5/29/2001 | BURRY ETAL | Cited for Related Interest | 345/161 | |
| | 6256011 | 7/3/2001 | CULVER | Footnote 63 -- Special Interest | 345/157 | |
| | 6262406 | 7/17/2001 | MCKEE ETAL | Footnote 72 -- Special Interest | 219/681 | |
| | 6262406 | 7/17/2001 | MCKEE ETAL | Cited for Related Interest | 219/681 | |
| | 6275138 | 8/14/2001 | MAEDA | Cited for Related Interest | 338/47 | |
| | 6285356 | 9/4/2001 | ARMSTRONG | Cited for Related Interest | 345/167 | |
| | 6310606 | 10/30/2001 | ARMSTRONG | Cited for Related Interest | 345/161 | |
| | 6321158 | 11/20/2001 | DELORME ETAL | Footnote 69 -- Special Interest | 701/201 | |
| | 6326948 | 12/4/2001 | KOBACHI ETAL | Footnote 65 -- Special Interest | 345/157 | |
| | 6343991 | 2/5/2002 | ARMSTRONG | Cited for Related Interest | 463/37 | |
| | 6344791 | 2/5/2002 | ARMSTRONG | Cited for Related Interest | 338/114 | |
| | 6347997 | 2/19/2002 | ARMSTRONG | Cited for Related Interest | 463/37 | |
| | 6351205 | 2/26/2002 | ARMSTRONG | Cited for Related Interest | 338/114 | |
| | 6352477 | 3/5/2002 | SOMA ETAL | Cited for Related Interest | 463/36 | |
| | 6400303 | 6/4/2002 | ARMSTRONG | Cited for Related Interest | 341/176 | |
| | 6415707 | 6/9/2002 | ARMSTRONG | Cited for Related Interest | 99/280 | |
| | 6404584 | 6/11/2002 | ARMSTRONG | Cited for Related Interest | 360/88 | |
| | 6422941 | 7/23/2002 | THORNER ETAL | Cited for Related Interest | 463/30 | |
| | 6424336 | 7/23/2002 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6456778 | 9/24/2002 | ARMSTRONG | Cited for Related Interest | 386/46 | |
| | 6469691 | 10/22/2002 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6470078 | 10/22/2002 | ARMSTRONG | Cited for Related Interest | 379/93.19 | |
| | 6496449 | 12/17/2002 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6504527 | 1/7/2003 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6518953 | 2/11/2003 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6524187 | 2/25/2003 | KOMATA | Cited for Related Interest | 463/37 | |
| | 6529185 | 3/4/2003 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6532000 | 3/11/2003 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6538638 | 3/25/2003 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6559831 | 5/6/2003 | ARMSTRONG | Cited for Related Interest | 345/159 | |
| | 6563415 | 5/13/2003 | ARMSTRONG | Cited for Related Interest | 338/47 | |
| | 6424333 | 7/23/2002 | TREMBLAY ET AL | Cited for Related Interest | 345/156 | |
| | 6275213 | 8/14/2001 | TREMBLAY ET AL | Cited for Related Interest | 345/156 | |
| | 5049079 | 9/17/1991 | FURTADO ET AL | Cited for Related Interest | 434/253 | |
| ↓ | 5349370 | 9/20/1994 | KATAYAMA ET AT | Cited for Related Interest | 345/159 | |

Examiner Signature
Keecey Mays

Date Considered

4/16/04

| | | | | |
|--------------------|--|-------------------------|-------------------|--|
| Form 1449 Modified | | Application Number | 09/754,477 | |
| | | Filing Date | Jan. 4, 2001 | |
| | | First Named Inventor | Brad A. Armstrong | |
| | | Art Unit | 2674 | |
| | | Examiner Name | Nguyen, K. | |
| | | Applicant's File Number | F35 | |
| | | | | |
| | | | | |

| Examiner Initials | Foreign Patent Document No. | Publication Date | Inventor or Applicant Name | Relevant Information | Previously Submitted |
|-------------------|-----------------------------|------------------|----------------------------|---------------------------------|----------------------|
| | | mm-dd-yyyy | | | |
| KN | DE3543890 | 06-19-1987 | THOMSON BRANDT | Footnote 82 -- Special Interest | |
| | EP0470615 | 02-12-1992 | NINTENDO CO | Footnote 81 -- Special Interest | |
| | AU645462 | 01-13-1994 | NINTENDO CO | Cited for Related Interest | |
| | AU8142991 | 02-13-1992 | NINTENDO CO | Cited for Related Interest | |
| | CA2048167 | 02-10-1992 | NINTENDO CO | Cited for Related Interest | |
| | CN1058728 | 02-19-1992 | NINTENDO CO | Cited for Related Interest | |
| | DE69114400 | 12-14-1995 | NINTENDO CO | Cited for Related Interest | |
| | ES2079529 | 01-16-1996 | NINTENDO CO | Cited for Related Interest | |
| | GB2247107 | 02-19-1992 | NINTENDO CO | Cited for Related Interest | |
| | HK30195 | 03-17-1995 | NINTENDO CO | Cited for Related Interest | |
| | KR9705724 | 06-11-1997 | BURR BROWN CORP | Cited for Related Interest | |
| | MX9100564 | 04-01-1992 | NINTENDO CO | Cited for Related Interest | |
| | SG8095 | 06-16-1995 | | Cited for Related Interest | |
| | DE3543890 | 06-19-1987 | THOMSON BRANDT | Footnote 82 -- Special Interest | |
| | EP0205726 | 12-30-1986 | HAL LAB INC / Nakamura | Footnote 4 -- Special Interest | |
| | SU739505 | 12-28-1977 | BARANOV ETAL | Cited for Related Interest | |
| | GB2205941 | 12-21-1988 | IBM CORP | Cited for Related Interest | |
| | GB2240614 | 08-07-1991 | DZHOLDASBEKOV ETAL | Footnote 6 -- Special Interest | |
| | GB2113920 | 08-10-1983 | ALPS / Murata et al | Footnote 59 -- Special Interest | |
| | DE19519941 | 03-13-1997 | WERGEN | Cited for Related Interest | |
| | EP0438919 | 07-31-1991 | KAYE, ARTHUR | Cited for Related Interest | |
| | EP0616298 | 09-21-1994 | YANO ETAL | Cited for Related Interest | |
| | JP5-87760 | 11-26-1993 | MITSUMI / Furukawa | Footnote 48 -- Special Interest | |
| | JP7302159 | 11-14-1995 | SEGA / Terajima | Footnote 61-- Special Interest | |
| | DE3031484 | 11-04-1982 | GRUNDIG EMV | Cited for Related Interest | |
| | DE3634912 | 04-28-1988 | LINK KG | Cited for Related Interest | |
| | DE4019211 | 01-03-1991 | LUTRON ELECTRONICS | Cited for Related Interest | |
| | DE19606408 | 08-28-1997 | CONTELEC AG | Cited for Related Interest | |
| | EP0337458 | 10-18-1989 | NAMCO | Cited for Related Interest | |
| | EP0579448 | 01-19-1994 | TEXAS INSTRUMENTS | Footnote 84 -- Special Interest | |
| | EP1080753 | 03-07-2001 | NAMCO | Cited for Related Interest | |
| | GB2058462 | 04-08-1981 | SHINESU POLYMER | Cited for Related Interest | |
| | GB2233499 | 01-09-1991 | MITSUBISHI | Cited for Related Interest | |
| | GB2267392 | 12-01-1993 | PHILLIP COLLINS | Cited for Related Interest | |
| | GB2308448 | 06-25-1997 | SAMSUNG DISPLAY | Cited for Related Interest | |
| | JP60175401 | 09-09-1985 | ASAHI CHEMICAL | Cited for Related Interest | |
| | JP62160623 | 07-16-1987 | KANAZAWA ETAL | Cited for Related Interest | |
| | JP02158105 | 06-18-1990 | YOKOHAMA RUBBER | Cited for Related Interest | |
| | JP2158105 | 06-18-1990 | YOKOHAMA RUBBER | Cited for Related Interest | |
| | JP3108701 | 05-08-1991 | CANON INC | Cited for Related Interest | |
| | JP04155707 | 05-28-1992 | YOKOHAMA RUBBER | Cited for Related Interest | |
| | JP4155707 | 05-28-1992 | YOKOHAMA RUBBER | Cited for Related Interest | |
| | JP5151828 | 06-18-1993 | YOKOHAMA RUBBER | Cited for Related Interest | |

Examiner
Signature

Date
Considered

4/16/04

| Examiner Initials | Foreign Patent Document No. | Publication Date | Inventor or Applicant Name | Relevant Information | Previously Submitted |
|-------------------|-----------------------------|------------------|-------------------------------|---------------------------------|----------------------|
| | | mm-dd-yyyy | | | |
| KN | JP6154422 | 06-03-1994 | NAMCO | Cited for Related Interest | |
| | JP7281824 | 10-27-1995 | NAMCO | Cited for Related Interest | |
| | JP09213168 | 08-15-1997 | KOIZUMI ETAL | Cited for Related Interest | |
| | JP9218737 | 08-19-1997 | NAMCO | Cited for Related Interest | |
| | JP9223607 | 08-26-1997 | KOIZUMI ETAL | Cited for Related Interest | |
| | JP11031606 | 02-02-1999 | KOIZUMI ETAL | Cited for Related Interest | |
| | RU2010369 | 03-30-1994 | SMYSLOV | Cited for Related Interest | |
| | WO9532776 | 12-07-1995 | FUJIWARA ETAL | Cited for Related Interest | |
| | WO9957630 | 11-11-1999 | SCIENTIFIC ATLANTA | Cited for Related Interest | |
| | EP0905725 | 03-31-1999 | EATON CORP | Cited for Related Interest | |
| | GB2155953 | 10-02-1985 | PERMELEC ELEC. | Cited for Related Interest | |
| | WO9718508 | 05-22-1997 | SYNAPTICS INC | Footnote 91 -- Special Interest | |
| | DE4013227 | 05-29-1991 | POULSOM ETAL | Footnote 97 -- Special Interest | |
| | CA2038894 | 05-24-1994 | PARK | Cited for Related Interest | |
| | WO9428387 | 08-08-1995 | BROWN ETAL | Cited for Related Interest | |
| | DE69306678 | 01-30-1997 | TEXAS INSTRUMENTS | Cited for Related Interest | |
| | JP6058419 | 03-01-1994 | TEXAS INSTRUMENTS | Cited for Related Interest | |
| | WO9318475 | 12-31-1996 | ARMSTRONG | Cited for Related Interest | |
| | EP0451676 | 10-16-1991 | Nokia Unterhaltungselektronik | Footnote 85 -- Special Interest | |
| | DE4011636 | 10-24-1991 | Nokia Unterhaltungselektronik | Cited for Related Interest | |
| | JP4230918 | 08-19-1992 | Nokia Unterhaltungselektronik | Cited for Related Interest | |
| | AU544234 | 05-23-1985 | EVENTOFF | Cited for Related Interest | |
| | CA1143030 | 03-15-1983 | EVENTOFF | Cited for Related Interest | |
| | CA1153801 | 09-13-1983 | EVENTOFF | Cited for Related Interest | |
| | CA1161921 | 02-07-1984 | EVENTOFF | Cited for Related Interest | |
| | CA1153577 | 09-13-1983 | EVENTOFF | Cited for Related Interest | |
| | CA1153802 | 09-13-1983 | EVENTOFF | Cited for Related Interest | |
| | CA1153803 | 09-13-1983 | EVENTOFF | Cited for Related Interest | |
| | DE3044384 | 08-27-1981 | EVENTOFF | Cited for Related Interest | |
| | FR2470435 | 05-29-1981 | EVENTOFF | Cited for Related Interest | |
| | GB2064873 | 06-17-1981 | EVENTOFF | Cited for Related Interest | |
| | GB2134320 | 08-08-1984 | EVENTOFF | Cited for Related Interest | |
| | GB2134321 | 08-08-1984 | EVENTOFF | Cited for Related Interest | |
| | GB213422 | 08-08-1984 | EVENTOFF | Cited for Related Interest | |
| | IT1143185 | 10-22-1986 | EVENTOFF | Cited for Related Interest | |
| | JP1976280 | 10-17-1995 | EVENTOFF | Cited for Related Interest | |
| | JP5196524 | 08-06-1993 | EVENTOFF | Cited for Related Interest | |
| | JP6058276 | 08-03-1994 | MASUDA MASANORI | Cited for Related Interest | |
| | JP2108444 | 11-06-1996 | ITOYAMA SEIJI | Cited for Related Interest | |
| | JP5197381 | 08-06-1993 | EVENTOFF | Cited for Related Interest | |
| | JP6101567 | 12-12-1994 | RIKEN CORP | Cited for Related Interest | |
| | JP1125871 | 05-18-1989 | EVENTOFF | Cited for Related Interest | |
| | JP1993198 | 11-22-1995 | EVENTOFF | Cited for Related Interest | |
| | JP5022398 | 03-29-1993 | CANON INC | Cited for Related Interest | |
| | NL8006409 | 06-16-1981 | EVENTOFF | Cited for Related Interest | |
| | SE452925 | 12-21-1987 | EVENTOFF | Cited for Related Interest | |
| | SE8008205 | 05-27-1981 | EVENTOFF | Cited for Related Interest | |
| | JP1710832 | 11-11-1992 | EVENTOFF | Cited for Related Interest | |
| | JP2049029 | 10-26-1990 | NIPPON TELEGR | Cited for Related Interest | |
| | JP56108279 | 08-27-1981 | EVENTOFF | Cited for Related Interest | |
| ✓ | WO9304348 | 03-04-1993 | HILTON | Cited for Related Interest | |

Examiner Signature

Keesha Myer

Date Considered

4/16/04

| Examiner Initials | Foreign Patent Document No. | Publication Date | Inventor or Applicant Name | Relevant Information | Previously Submitted |
|-------------------|-----------------------------|------------------|----------------------------|----------------------------|----------------------|
| | | mm-dd-yyyy | | | |
| KN | DE3687571 | 03-04-1993 | HILTON | Cited for Related Interest | |
| | EP0227432 | 07-01-1987 | HILTON | Cited for Related Interest | |
| | JP1875027 | 09-26-1994 | HILTON | Cited for Related Interest | |
| | JP62177426 | 08-04-1987 | HILTON | Cited for Related Interest | |
| | GB2133957 | 08-01-1984 | BOUGHTON | Cited for Related Interest | |
| | CN1202254 | 12-16-1998 | SYNAPTICS INC | Cited for Related Interest | |
| | EP0861462 | 09-02-1998 | SYNAPTICS INC | Cited for Related Interest | |
| | JP11511580 | 10-05-1999 | SYNAPTICS INC | Cited for Related Interest | |
| | AU557120 | 12-04-1986 | BOUGHTON | Cited for Related Interest | |
| | AU2379484 | 08-02-1984 | BOUGHTON | Cited for Related Interest | |
| | ZA8400356 | 08-29-1984 | BOUGHTON | Cited for Related Interest | |
| | EP0835676 | 04-15-1998 | SEGA ENTERPRISES | Cited for Related Interest | |
| | CA1203738 | 04-29-1986 | CAE ELECTRONICS | Cited for Related Interest | |
| | DE4004760 | 08-22-1991 | DZHOLDASBEKOV ETAL | Cited for Related Interest | |
| | JP61292734 | 12-23-1986 | HAL LAB INC. | Cited for Related Interest | |
| | EP0295368 | 12-21-1988 | IBM CORP | Cited for Related Interest | |
| | JP4077335 | 12-08-1992 | NKK CORP | Cited for Related Interest | |
| | JP63318623 | 12-27-1991 | IBM (US) | Cited for Related Interest | |
| | DE19803627 | 08-05-1999 | BALTUS RENE | Cited for Related Interest | |
| | JP9223607 | 08-26-1997 | KOIZUMI ETAL | Cited for Related Interest | |
| | WO9522828 | 08-24-1995 | INTERLINK ELECTRONIC | Cited for Related Interest | |
| | EP663648 | 07-19-1995 | IBM CORP. | Cited for Related Interest | |
| | JP5151828 | 06-18-1993 | YOKOHAMA RUBBER | Cited for Related Interest | |
| | EP0169624 | 01-29-1986 | ASAHI ETAL | Cited for Related Interest | |
| | GB2159953 | 12-11-1985 | STC PLC | Cited for Related Interest | |
| | EP0050231 | 12-06-1983 | BOSCH-SIEMENS | Cited for Related Interest | |
| | JP5326217 | 10-12-1993 | MITSUMI / Furukawa | Cited for Related Interest | |
| ✓ | JP 63-029113 | 08-16-1989 | YAMAHA CORP. | Cited for Related Interest | |
| | | | | | |
| | | | | | |

Examiner Signature

Karen Mee

Date Considered

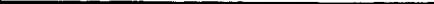
4/16/04

| | | | | | |
|------------------------------|--|--|---|--|--|
| | | | | | |
| | Application Number: 09/754,477 | | | | |
| | Filing Date: Jan. 4, 2001 | | | | |
| | First Named Unit: Brad A. Armstrong | | | | |
| | Group Art Unit: 2674 | | | | |
| | Examiner's Name: Nguyen, K. | | | | |
| | Applicant File Number: F35 | | | | |
| EXAMINER INITIALS | NON PATENT LITERATURE DOCUMENTS AND OTHERS REFERENCES | Additional Data in Footnote | Previously Submitted in this Application | | |
| KW | Mouse Ball-Actuating Device with Force and Tactile Feedback", IBM Disclosure Bulletin, v1 32, No. 9B, Feb. 1990, pp. 230-235 | Footnote 2 -- Special Interest | | | |
| KN | Research Disclosures, vol. 283, Nov. 1987 (USA) "Joystick with Tactile Feedback" | | | | |
| KN | Development of a General Purpose Hand Controller for Advanced Teleoperation" KV Siva Harwell Laboratory, UK. July 1988 | Footnote 12 -- Special Interest | | | |
| KN | The "CyberMan" 3D Controller by Logitech Inc. of Fremont California US in 1993, a two page advertisement flyer is provided herewith, as are detailed drawings. | Footnote 9 -- Special Interest | | | |
| KN | Kambic "Keyboard Switch with Stroke and Feedback Enhancement Using Vertically Conducting Elastomer In a Laterally Conducting Mode", IBM Technical Disclosure Bulletin, Volume 20, No. 5, October 1977, pp. 1833-1834 | Footnote 22 -- Special Interest | | | |
| | USB DEVICE CLASS DEFINITION FOR HUMAN DEVICES, OCT. 14, 1998 | | | | |

Examiner
SignatureDate
Considered

4/16/04

| | | | |
|--------------------|------------|-----------------|---------|
| Examiner Signature | Karen Myra | Date Considered | 4/16/04 |
|--------------------|------------|-----------------|---------|

| | | | |
|--------------------|---|-----------------|---------|
| Examiner Signature |  | Date Considered | 4/16/04 |
|--------------------|---|-----------------|---------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.